IN THE CLAIMS:

Applicants, pursuant to 37 CFR § 1.121, submit the following amendment to the Claims:

1. (Currently amended) A[[n]] method for stratifying mammalian subjects having at least one cardiovascular disease, comprising~~in vitro method for analyzing a sample from a mammal in connection with at least one cardiovascular disease, wherein said method comprises the following steps~~:

a) isolating, from a biological sample obtained from a mammalian subject having at least one cardiovascular disease, bone marrow-precursor-cells (BMP) and/or blood-derived circulating precursor-cells (BDP) by means of at least one cell specific surface marker;~~, and~~

b) performing a cell migration assay on the BMP and/or BDP to provide an assessment of migratory capacity thereof;

c)[[b)]] determining, based on the assessed migratory capacity, the cardiovascular functionality of BMP and/or BDP; and

d) determining, based on the determined cardiovascular functionality, whether the subject would benefit from cell therapy and/or an ex vivo pretreatment of their BMPs or BDPs before retransplantation of the cells to provide for improvement of subject's cardiovascular functionality, wherein a method for stratifying mammalian subjects having at least one cardiovascular disease is afforded~~ the cardiovascular functionality of the isolated BMP and/or BDP by means of a migration assay~~.

2. (Currently amended) The method according to claim 1, further comprising the comparison of the assessed migratory capacity and/or the determined cardiovascular functionality result as obtained from the sample as examined with a reference value and/or the result of a reference sample.

3. (Previously presented) The method according to claim 1, wherein the sample to be examined is derived from a human.

4. (Previously presented) The method according to claim 1, wherein the sample to be examined is selected from the group consisting of bone marrow, peripheral blood or fractions thereof and cell culture-suspensions or fractions thereof.

5. (Previously presented) The method according to claim 4, wherein a coagulation inhibitor is added to the peripheral blood.

6. (Previously presented) The method according to claim 4, wherein the sample to be examined is obtained by means of punctuation from the bone marrow.

7. (Previously presented) The method according to claim 1, wherein the isolating occurs by using density-gradient-centrifugation, cell specific surface markers, and/or immunological methods.

8. (Previously presented) The method according to claim 7, wherein the isolating occurs by using FACS or immunomagnetic separation.

9. (Previously presented) The method according to claim 1, wherein the cell specific surface marker for BMP is selected from CD34, CD45 and CD133, and for BDP is selected from VEGFR2, CD105, vWF and CD31.

10. (Previously presented) The method according to claim 1, wherein the migration assay is performed in a Boyden-chamber or a modified Boyden-chamber.

11. (Previously presented) The method according to claim 1, wherein the migration assay is performed using SDF-1, VEGF, P1GF or MCP-1.

12. (Previously presented) The method according to claim 1, wherein the cardiovascular disease is selected from the group consisting of stable and unstable angina, stable coronary heart disease, acute coronary syndrome, myocardial infarction, acute myocardial infarction, acute heart syndrome, coronary artery disease, chronic ischemic cardiomyopathy (ICMP), dilatative cardiomyopathy (DCM), heart insufficiency, and other causes of a cardiac weakness.

13. (Previously presented) The method according to claim 1, wherein the method is performed immediately before a cell infusion into the mammal.

14. (Previously presented) The method according to claim 1, wherein the examined isolated BMP and/or BDP are autologous and/or heterologous for the mammal.

15.-34. (Cancelled).

35. (New) The method of claim 1, comprising placement of the subject into a stratified classification group.

36. (New) The method of claim 1, further comprising administration of cell therapy to the stratified subject.

37. (New) The method of claim 36, wherein cell therapy comprises administration of at least one of bone marrow-precursor-cells (BMP) and blood-derived circulating precursor-cells (BDP).

38. (New) The method of claim 37, wherein administration comprises infusion of cells into the subject.

39. (New) The method of claim 37, comprises administration of at least one of a statin, VEGF, and erythropoietin.

40. (New) The method of claim 39, wherein the statin comprises atorvastatin.